

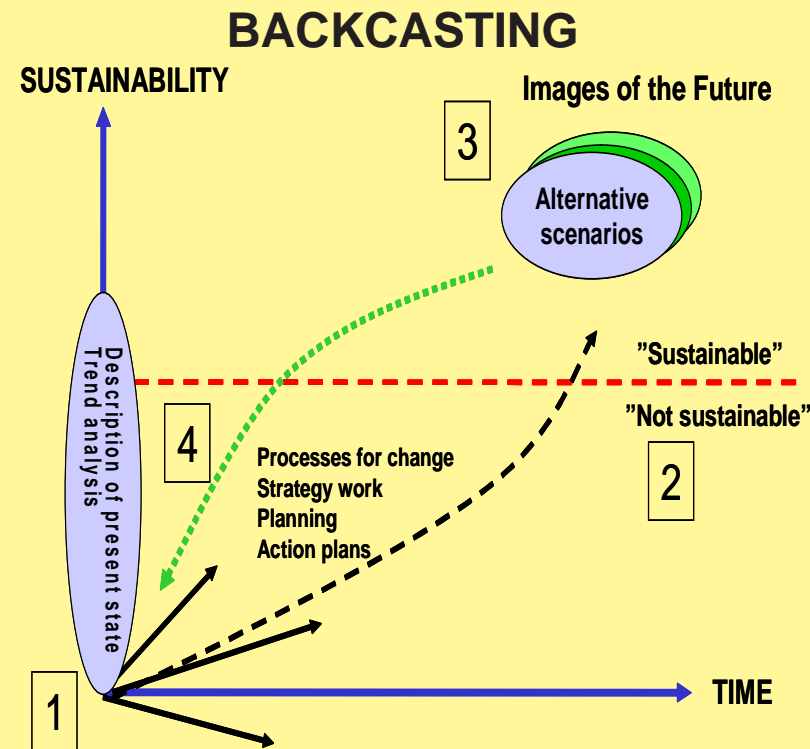
Urban Design Göteborg 2050

Urban Struktur Göteborg 2050

Using visions and images of the future for strategic urban planning

The use of visions and images of the future can be an important tool for developing a long-term sustainable city. In the project Göteborg 2050 we apply this tool to Göteborg and the surrounding regions. The report Urban Design Göteborg 2050 has been prepared in co-operation with the City Planning Authority of the City of Göteborg.

The Urban Design Göteborg 2050 vision has been developed in the spirit of a methodology called backcasting. In the first step of this method an analysis is made of the present state and trends in the society. Secondly, criteria for a sustainable city in a sustainable society are developed. The third step involves the developing and visualizing of images of the future, using workshops and other input. The visions are finally compared to the present state and trends and are used for strategic planning, as input to strategic and action plans and to speed up processes of change.



The City Planning Authority of the City of Göteborg

The City Planning Office of the City of Göteborg is responsible for comprehensive and spatial planning as well as for building permits and map support.

The project Göteborg 2050

The visionary project Göteborg 2050, aiming to speed up the development towards sustainability, was carried out in co-operation between the Chalmers University of Technology and Göteborg University, Göteborg Energi AB, and The City of Göteborg. Additional support was received from The Swedish National Energy Administration (STEM) and The Swedish Research Council for Environment, Agricultural Science and Spatial Planning (Formas), The Region of Västra Götaland and Renova. The project was concluded in December 2004, but the work towards sustainability will continue in Göteborg and the surrounding regions.

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Visions and Scenarios for a Sustainable Urban Design in the Göteborg Region



A sustainable urban design with:

- A dense and diverse building structure for mixed usage
- Energy efficient buildings
- Closeness to transportation nodes and local squares
- New rail systems and more space for bikes and pedestrians
- Well-kept green areas



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A dense and diverse building structure for mixed usage is a necessity for a sustainable city of the future. With a denser urban design it is easier to achieve effective public transportation and enable more bicycling and walking. A varied infrastructure with homes, services, businesses, green spaces and meeting places gives the city an intensive pulse both day and night. An expansion of the city is concentrated around existing and new local squares. The concentrated expansion takes part mostly in and around Göteborg or in already existing or new urban areas in the Göteborg region. Concentration is achieved by adding new buildings in old neighborhoods and by adding new floors to already existing buildings. Most of the cars are part of vehicle pools hence existing parking lots can be used for other purposes.

Energy efficient buildings are a necessity if grave climate changes are to be prevented. Measures taken to reduce energy use give, besides a lowering of the carbon dioxide emissions, also lower costs and many other environmental profits. Thicker insulation, tightening, energy efficient windows and heat exchangers connected to exhaust air and to the sewer system are all used at the construction of new buildings and the renovation of old ones.

Closeness to transportation nodes and local squares.

Housing, jobs, services and entertainment are concentrated around transportation nodes and local squares to give closeness to daily activities. This lessens the needs for short-range transportation. The nodes for public transportation are important in less dense areas of the city and provide services. Parking for cars and bicycles allow easy transfer to public transportation. In denser populated areas the focus is on local squares around which housing, working places and services are concentrated. The local squares have tele-offices for tele-commuting.

New rail systems and more room for bikes and pedestrians

improve sustainability in the transport system. A sustainable urban design focuses on the integration of the urban structure with the public transport system. This means new rails for commuter trains, light railways and tram lines. Existing roads are in some cases converted to rail use and new tunnels and bridges are built for rail and bicycle traffic. Planning focus is moved from car mobility to pedestrian and bicycle mobility and public transportation.

Well-kept green areas

are important for a sustainable urban design. In between concentrated urban structure focused on local squares and nodes there are also less dense green areas for recreation and local cultivation. The sustainable city gives less room for cars and more room for green areas. The city is full of cultivation lots, streets lined with fruit trees and parks for meeting, fun and games.



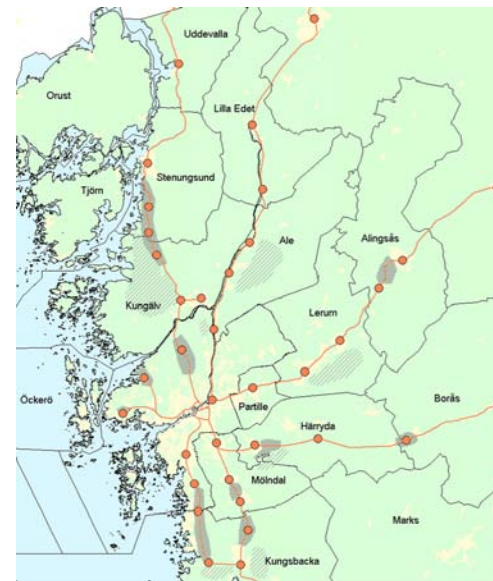
Commuter train stations are important transportation nodes.

For further reading see "Urban struktur Göteborg 2050" (Swedish only), available at www.goteborg2050.nu



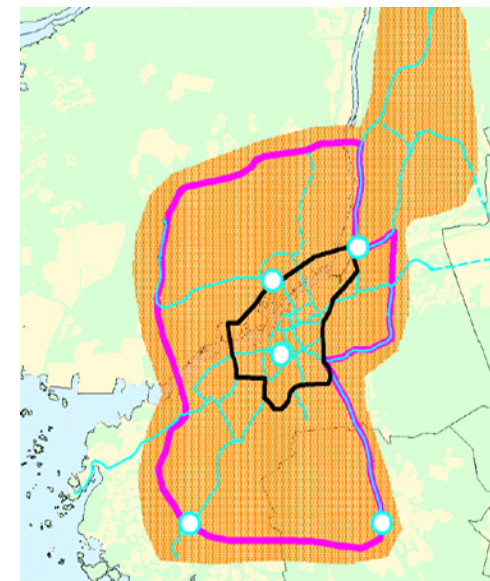
The feeling of a local square in Göteborg.

Scenarios for a Sustainable Urban Design



Suburban life

"Suburban Life" is one scenario of two that describes a possible sustainable urban design. The figure to the left shows that the concentration around nodes occurs in the region. In Suburban Life there will be many commuters to the Göteborg city centre. Communities around the city have grown. The dense shadowing in the figure shows how new communities in the periphery have formed around new or old railway stations. The light shadowing shows attractive areas where for new housing.



Meetings at the Local Square

"Meetings at the Local Square" is the other scenario. In this scenario the region has become denser. Most people live in the city center and close to local squares. The figure to the right shows an extended rail-based public transportation system in Göteborg. Most of the new urban development has taken place inside the circumference of a new high-speed tram-line (marked by violet in the figure) and in the North East. The black color symbolizes a new inner circle tram-line. Important nodes are located at the areas where local meets regional (according to the map on the left).

Suburban life

Ali, sitting in the quiet reading wagon on the commuter train, puts down the e-book on the seat next to him. He is glad to soon be at home after a day's hard work in Stenungssund, a town 50 km North of Göteborg. In the corner of an eye he sees a known face and nods "hello" when Zowi-Ås walks by. Zowi-Ås nods back while hastening to her pre-booked workplace in a wagon further back.

Zowi-Ås has been to the bistro and dined with some good friends. She is on her way back to her train-workplace to collect her things. She crosses her fingers and hopes that her electric scooter will be ready at the Göteborg West station when she arrives. She left it at the service place at the station the same morning and it would be nice to be able to take it back to her apartment in the Majorna district of the city.

She looks out at the town of Kungälv, with its detached housing of different shapes and forms, passing by the window. Closer to the coast the houses are more traditional while the houses in the inland is characterized by more experimental and modern architecture. Though different at least one thing unites the areas; the houses have large backyards and rooftop solar panels.

Meanwhile Matilda turns into the parking lot at Säve station, just north of the City centre. She is in good time because the last lecture at the university turned out to be cancelled. She makes use of the extra time by filling up her duo microcar with some extra hydrogen. This morning Matilda promise her father that she would pick him up at the end of the day, but the more tired she gets the more she regrets her promise. Finally her father, Ali, turns up and they set off for a trip through the urban areas towards the township of Angered

Visions in Words

Meetings at the Local Square

Zowi-Ås ends the meeting with a "click" and the hologram of her Copenhagen-based superior shrinks to finally disappear from the sofa. She gives a happy shout as she had just been given the permission to spend even more work-time at the tele-office at her local square. She finishes her workday and heads for home, leaving her colleagues who also live in the neighborhood. On her way home she stops off at the local square to pick up her pre-ordered goods and to do some extra shopping.

The smells from the restaurants are wonderful. The square is crowded with people of all ages. Ali's family sits at the open-air café eating a spicy vegetable casserole. Ali looks out over the lively square and enjoys the family's decision to take a day off. Behind the tall buildings around the local square they catch a glimpse of the skyscrapers in the city center. Ali takes yet a spoonful of casserole and raises the glass to a cheer.